



BYRNE GRANT STATEMENT OF WORK

JIN Criminal History Query

PURPOSE

The Department of Information Services on behalf of the Integrated Justice Information Board (the Board) for the state of Washington (State) seeks to engage Contractor for the purpose of designing and implementing a statewide, integrated Justice Information Network Criminal History Query (JIN CHQ). The State is seeking solutions based on an open, standards and service-based architecture that builds on the existing state infrastructure and improves the flow of information in a flexible and cost effective manner. The State does not intend to create a central data repository. The State seeks solutions that correspond to its design and technology principles:

Technology Principles

Standards - JIN constituents should conform to national, state, and open industry standards wherever possible.

Integration- New applications should focus on integration with the JIN infrastructure and data sharing as part of the design process.

Shared Infrastructure - The JIN community will use shared infrastructure appropriately and leverage existing infrastructure to the fullest extent possible.

Security and Privacy - Disclosure of data is the responsibility of the owner of the data according to applicable laws. Applications, data and security are the responsibility of their respective owners.

Applications and Data Exchanges – Applications that need to exchange data via the JIN, should be designed or enhanced to be compatible with the JIN infrastructure.

Reusable Components - Applications should use common, reusable components, data and designs wherever possible.

Design Principles

Exchanges - Exchanges will be event-driven and timely, and designed to optimize efficiency for publishers and subscribers.

Services - The Justice Information Network is a service provider.

Security - Exchanges will be secure and will comply with all state and federal requirements.

These principles, other standards and additional background information may be found at <http://www.jin.wa.gov>.

To support an enterprise strategy for JIN, an overall integration capability will be developed as part of the “core” infrastructure. This model will include exchange logic, business rules, conversion routines, and transport protocols are part of a single infrastructure. Every application has one connection to the integration core, and therefore potentially only one access program that can support any required exchange with any other application.

Contractor shall assess the performance and security needs of the justice community based on current operational environments, including use of the Inter-Governmental Network (IGN), State Government Network (SGN), and the Internet. The work will focus particularly on the Department of Information Services (DIS), the Administrator of the Courts (AOC), the Washington State Patrol (WSP), and King and



Yakima counties, which are the key participants in this effort. In addition, the State seeks to review the current security design and to develop a security model to meet user, legal, and procedural requirements. The Contractor shall, as further described in this statement of work, perform the following:

1) Examine and design the architecture for JIN CHQ based on customer requirements and current operational environments. The Contractor shall propose an architecture that makes use of existing networks and applications, such as the IGN, the SGN, and the Internet, and meets the requirements and rules of DIS, AOC, WSP, King County and Yakima County. The Contractor shall deliver a plan for designing a fully operational, scalable application that will allow state and local criminal justice agencies to exchange information securely, reliably and in real time regardless of existing technology infrastructures. This plan shall include operational models for security and performance.

2) Develop two web-based queries using the application designed and deployed as a result of Phase 1, and that build on the currently operational Summary Offender Profile.

A summary of the deliverables for each Phase of the work is as follows:

Phase 1 –Design

Contractor shall perform the following services and deliver the key deliverables in the estimated timeframes established below:

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|----------------------------------|-------------------|
| • Customer Requirements Report | December 3, 2004 |
| • Requirements Baseline Document | December 17, 2004 |
| • Alternatives Document | December 31, 2004 |
| • Design Document | February 11, 2005 |
| • Implementation Plan | February 25, 2005 |

Phase 2 - Implementation Phase

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|---------------------------------------|----------------|
| • Installation and Configuration | April 30, 2005 |
| • ID of Possible Match Query | June 6, 2005 |
| • Consolidated Criminal History Query | June 6, 2005 |

The Contractor will provide services under this agreement in the following manner:

- Provide independent, objective and credible analysis, recommendations and cost estimates.
- Provide technical expertise on integrated justice information exchanges and standards.
- Provide operational and organizational expertise relating to integrated justice application environments.
- Provide administrative support for meetings and documentation.
- Provide all services utilizing a collaborative process.

DESIGN PHASE

Identify, Gather and Assess Requirements

Contractor shall perform facilitated sessions and interviews of JIN constituents and shall review existing documentation for the purpose of assessing the current operational environment and needs of the stakeholders. Contractor shall provide the JIN Project Manager a summary report that details the information shared at the facilitated sessions, the information obtained through the interviews and details the



findings of the existing documentation. The report shall include the following content: Executive Summary, Background, Methodology, current architecture, the legal and procedural requirements for information sharing and security, and Key Observations.

Contractor shall document all assets and current system capabilities, such as the current operational environment, existing automated and manual processes, opportunities to improve operations through the use of IT, overriding business and service delivery objectives, information-related data requirements, data collection techniques, data sharing or exchange processes, current and impending system requirements, inventory of existing information systems used by the stakeholder organizations, internal and external factors that will influence system direction, and the current technology environment.

Deliverable: Customer Requirements Report

Sessions

Contractor shall conduct a minimum of one facilitated meeting with all of the JIN constituents, particularly the AOC, WSP, DIS, King County and Yakima County, at location(s) as designated by the JIN Project Manager. The primary purpose of the facilitated meeting will be to build consensus and gather information. Contractor shall also conduct interviews with key representatives of AOC, WSP, King County, Yakima County and DIS to gather information about the current operational environment. The objectives of the facilitated session and interviews will be to introduce the project, review objectives, discuss the needs of the community for justice information sharing, validate the JIN requirements set forth in section 2.1.1.3, and define the security and performance requirements of the justice community for data exchanges and connectivity.

Contractor shall assess the performance and security needs of the JIN community based on 1) current operational environments, including use of the Inter-Governmental Network (IGN), State Government Network (SGN), and the Internet and 2) the JIN Requirements set forth herein. Contractor shall work with the JIN project manager in arranging, planning, and facilitating the forum and interviews. Contractor shall conduct additional meetings and/or interviews as necessary or requested by the JIN Project Manager to ensure that there is open and constructive communication amongst the participants and that sufficient information has been gathered. Contractor shall provide the JIN Project Manager a summary report detailing information shared at the forum or acquired through interviews.

Documentation

Contractor shall review DIS, AOC, WSP, King County, Yakima County and JIN planning documentation, and the documentation listed below, to assess the current operational environment, as well as the legal and procedural requirements for information sharing. Contractor will work with the JIN Project Manager to collect such documentation. Documentation to be reviewed shall include, but not be limited to, the following:

- JIN Feasibility Study
- JIN Strategic Plan
- JIN Technical Architecture Report dated June 2002
- 2002 Implementation Recommendations
- Summary Offender Profile Design Document
- WSP ACCESS Manual
- DIS, AOC and WSP IT portfolios
- King County Law, Safety and Justice Integration planning documents



- Yakima County Technical Services Law & Justice System Integration planning documents.
- Other documents, rules, regulations, laws, contracts

Contractor shall also review any other documentation upon the request of the JIN Project Manager.

JIN Requirements

The following proposed requirements were identified by the JIN Steering Committee. Contractor shall validate these requirements throughout the assessment process by gathering information on which items are or are not the requirements of the stakeholder group. The JIN Steering Committee requirements are as follows:

Core Application Requirements

- Allow applications to be integrated in a loosely coupled fashion
- Support industry standard component models
- Support open communications protocols
- Implement integration with minimal impact and changes to existing applications
- Allow processing to continue if one or more connected applications are temporarily unavailable
- Make use of third party databases for the storage of business rules, routing information, metadata information, and schema definitions
- Allow applications to register their services or their interest in a given event without disrupting the operation or configuration
- Provide a secure and managed environment for integration exchanges
- Scale the solution as applications, transactions, and services are added

Communications Requirements

The JIN CHQ should facilitate guaranteed, bi-directional information exchange among disparate applications. It should provide a fully functional transactional and data integrity infrastructure for the network. It should employ a protocol that supports once only delivery of messages and provides for message queues, and the tools required to manage those queues.

JIN CHQ should support the ability to access information from a data source, and transform or manipulate the data before either transporting it to another application or presenting it to a user. Transformation capabilities must include both logical (e.g., field merges) and structural (e.g., format changes) transformations.

JIN CHQ must have the ability to define these transformations as business rules to be performed during any activity involving a specific data source, and as transaction rules to be performed during a specific exchange.

Envisioned capabilities of the message and communications services to be validated by the users are as follows:

- Provide guarantee once-only message delivery
- Provide the ability to return receipts of message deliveries
- Allow for content-based message routing
- Provide notification of message delivery failure, and maintain state to rollback and restore data in the event of failure
- Provide the ability to dynamically reconfigure message routing without impacting any services
- Provide the ability to log high-priority messages to persistent storage without impacting performance
- Provide the ability to restrict or control message delivery based on security-based access rights;
- Provide a security schema that can be based on individual messages, message groups, or message content



- Perform all message transport transparently among different hardware platforms, databases, and operating systems

Data Management Services

JIN CHQ should include data management services that support the following capabilities:

- Metadata management associated with the data, exchanges, transactions, and processes developed within and connected to the network
- Data schema management and documentation to be used in transformations and exchanges, including the ability to manage an exchange schema using JusticeXML v3.0
- Relational database to capture information to support audit, reporting, and administration functions

Connectivity Services

JIN CHQ should provide software connections among agency platforms, applications, and databases in a scalable, high-performance, non-intrusive manner. These connections should enable the organization to perform standard data exchanges, XML based communications, and file exchanges with other participants, regardless of the existing technology employed by either the transmitting or receiving systems.

Finally, the design solution should also include the mechanisms for providing the required connectivity for all applications that are within the scope of the JIN operations. This may include off-the-shelf adapters to connect to the relevant technologies, or guidelines for creating such adapters.

Application and Interface Development Services

The solution should include development tools that can support the aspects of integration associated with developing web-based applications and user interfaces. Proposed requirements include:

- Basic graphical UI development for presenting data consolidated from multiple sources
- Small-scale application development leveraging data and components from underlying systems
- Mission critical application development capabilities

Critical success measurement.

Contractor shall use the information, opportunities and problems identified in the Customer Requirements Report, and shall develop specific objectives that the new application must address. The objectives will address both organizational and technology-related issues and will be directly related to each problem and opportunity identified in the Customer Requirements Report. The objectives will be evaluated, and one or more critical success measurements will be defined for each.

The critical success measurements will be stated in such a manner that they will be reasonable, understandable, measurable, believable and achievable. The relationship between the critical success measurements and the objectives will be defined and the reasoning behind the need for the critical success measurements will be included. This section will address the specific objectives of the new system, the critical success measurements for each objective and a strategy for tracking each critical success measurement.



Requirements Baseline Document

Using the information gathered and assessed in previous tasks, the Contractor shall prepare a requirements baseline document that includes the system objectives; the critical success measurements; all operational, functional and technical requirements; describes how they were identified and prioritized; and describes specific measurable and quantifiable performance standards. This baseline shall be structured for use in guiding performance standards, and for use in guiding stakeholders interests toward agreement on key system goals. These requirements will provide the basis for defining the alternatives and evaluating the effectiveness of each in meeting the overall business and technical needs of the justice community. It will be used to derive system specifications. Contractor shall submit the draft Requirements Baseline Document to the JIN Project Manager for review and approval. Upon approval, the Contractor shall submit the Requirements Baseline Document to the JIN Project Steering Committee for review and approval or if the document is not approved, modification and resubmission for review and approval.

Deliverable: Requirements Baseline Document

Alternatives

Using the results of the previous tasks and deliverables, Contractor shall develop and assess alternative configuration and design approaches to meeting the previously defined objectives and requirements. Contractor will develop alternatives, analyze their strengths and weaknesses, and review the analysis with stakeholders. The alternatives evaluated will include an analysis of existing systems and will explore the opportunity to integrate the new application into existing information systems. The evaluation will determine possible implementation alternatives, and shall use criteria that considers validated requirements, performance standards, and life-cycle costs, as well as risk, support, organizational and funding issues. Contractor shall define costs, including one time and recurring costs and direct and indirect costs. Contractor will document the future impacts of the alternatives, including issues such as maintainability and expandability. Contractor shall work with the JIN Project Manager in identifying and evaluating the alternatives, and shall consider any alternatives the JIN Project Manager or the JIN Steering Committee deem necessary.

Contractor shall prepare a draft alternatives document, and shall present the report to the JIN Project Manager for review and any necessary updates. Upon approval, the Contractor shall present the document, including any updates, to the JIN Steering Committee for review and approval or if the document is not approved, modification and resubmission for review and approval.

Deliverable: Alternatives Document

"To be" Model

Upon approval of the alternatives, the Contractor shall take the selected alternative, the baseline requirements, the additional recommendations and information gathered, and shall develop a conceptual design of the network infrastructure for justice information sharing in the State that takes into consideration and is consistent with the JIN technology and design principles.

Contractor shall build on data collected and reviewed to create a high level design for information sharing and



connectivity. The Contractor will address all of the items assessed as part of the Customer Requirements deliverable and make optimum use of existing infrastructure and reusable components. Contractor will also consider available off-the-shelf applications. The design will provide sufficient detail to enable the State to understand the changes that will be required to the current environment and the manner in which system components will interact.

The design will provide sufficient detail to enable all JIN constituents to identify opportunities to change their existing business practices to increase efficiency and effectiveness. The plan must set forth recommendations for executive and legislative action to ensure JIN constituents can communicate with one another. The plan must set forth recommendations to conform to federal, state and local law and regulations. The report shall include an assessment of costs saved or added as a result of implementation of the proposed infrastructure, including those related to network hardware, software and staffing.

Contractor will begin with the data gathered and requirements defined in the previous phases. The design will include the following elements:

- Full architecture view, which details how the justice systems would fit together and with other communications and information systems
- Business case
- Flow charts
- Coverage maps
- Connectivity and data flow diagrams
- Interface specifications that illustrate how the system will present information to end users and interface with external systems
- Security framework/model for information sharing that complies with all current requirements and which is flexible enough to adapt to frequent and radical change
- Performance gap analysis
- User service plans
- Hardware/Software recommendations (with cost estimates)
- An assessment of operational costs, including hardware/software cost estimates, including an analysis of other assumptions or factors that influence system funding
- Recommendations for executive and legislative action
- Regulatory issues governing justice information systems

Deliverable: Network Design Document

Implementation Plan

Contractor shall provide a plan for implementation and installation of the solution design, including a proposed project schedule and an acquisition plan for the hardware and software. Contractor shall work with the JIN Project Manager to determine which tasks are the responsibility of DIS or the JIN Project Manager. Contractor shall include in the tasks how the operational, functional and technical requirements will be verified and validated (i.e., performance measures, testing approach and quality assurance). The plan should include processes for scheduling and cost management, technical management, risk management, configuration management, testing and validation. Contractor shall include a high-level work breakdown structure. The plan should address training



(including end-user training, system administration and operational support training, as well as developer training). The plan must also include ongoing support and maintenance. The plan shall include a phased migration plan to implement recommended solutions. The implementation plan shall include recommendations for assistance by Contractor, as needed, in the acquisition, installation, configuration, testing and validation of the hardware and software.

Contractor shall provide information about the development and operational costs of the proposed solution, including recommended hardware and software to be acquired separately by DIS. Contractor shall also provide an assessment of costs saved or added as a result of implementation of the proposed infrastructure, including those related to network hardware, software and staffing.

Deliverable: Implementation Plan

Acquisition Plan

Contractor shall provide an acquisition plan for the acquisition of the hardware and software as part of the implementation plan. The acquisition plan must meet Washington State IT acquisition policies and Washington statewide policies for acquisitions. The acquisition plan shall include the assistance by Contractor, as necessary, in the coordination of acquiring the hardware and software.

Project Schedule

Contractor shall provide a proposed project schedule for implementation of the proposed solution. This schedule will include all of the tasks and deliverables identified in the implementation plan and the network design, along with assigned responsibilities for each task in the implementation plan including required state resources.

IMPLEMENTATION PHASE

Installation and Configuration

Contractor shall assist, as required or determined by the JIN Project Manager, in the installation, configuration, testing and validation of the implementation of the network design. Contractor shall monitor the various stages and activities of the installation, configuration, testing and validation of the design to ensure that the project is conducted in accordance with the design and implementation plan.

Consolidated Criminal History Queries

Contractor shall, in a manner consistent with the JIN Technology and Design Principles, develop two web-based query services. These services will provide information from AOC and WSP applications. The first service will, based on limited biographical information, identify possible matches from state repositories of information. The second will, based on a unique identifier, provide a comprehensive summary of the subject's interaction with the state. Both queries should be designed in a fashion to be delivered through the JIN website or on a system-to-system basis. This process will be validated through the project's partnership with King and Yakima counties.



Identification of Possible Matches

This service envisions the development of a web-based query tool in which the user, through a generic or existing interface, submits biographic data (name, birth date, etc.) and receives potential hits to obtain a series of possible identity matches along with a) descriptive information that permits analysis of the results; and b) unique identifiers that allow the user to obtain the criminal history described below. User interaction with this query tool includes a Web Service that allows users to pass the defined data request as an XML message and receive the response as an XML message, and a browser-based manual interface that leverages the same Web Service. XML message formats will comply with the GJXDM3.0 “JusticeXML” schema.

This task includes review of the Summary Offender Profile application and documentation for re-usable material; gathering user requirements to define the query scope; the development of all objects required to build the query Web Service and generic user interface; the preparation and presentation of complete documentation (including XML schemas and functional test data); the conducting of user interface testing; the installation and configuration of needed hardware and software in appropriate operating environment; and any necessary training for state and local operating staff.

Contractor shall deliver a fully operational and implemented web based query service using generic interface, system to system transfers for the identification of possible matches together with the following:

- Full design and development documentation
- All source code, including code for the application interface and programming to support the application
- XML schemas for query
- Functional testing and validation
- System-to-system transfers with Yakima County and King County
- Generic web-based interface

Contractor shall provide the ID of Possible Match Query deliverable and all documentation to the JIN Project Manager for review and any necessary updates. Upon approval, the Contractor shall present the deliverable and documentation, including any updates, to the JIN Steering Committee for review and approval or if the deliverable is not approved, modification and resubmission for review and approval.

Deliverable: ID of Possible Match Query

Consolidated Criminal History Query

This service envisions the development of a web-based query tool that allows the user to submit a unique identifier (PCN, SID, DL, FBI) and to obtain comprehensive, consolidated criminal history data available in the main state repositories (AOC, WSP). User interaction with this query tool includes a Web Service that allows users to pass the defined data request as an XML message and receive the response as an XML message, and a browser-based generic interface that leverages the same Web Service. XML message formats will comply with the GJXDM3.0 “JusticeXML” schema.



This task includes gathering user requirements to define the query scope; the development of all objects required to build the Web Service and manual user interface; the conducting of user interface testing; the installation and configuration of needed hardware and software”; and any necessary training for DIS or other staff.

Contractor shall deliver a fully operational and implemented web based query service using generic interface, system-to-system transfers for the identification of possible matches together with the following:

- Full design and development documentation
- XML schemas for query
- All source code, including code for the application interface and programming to support the application
- Functional testing and validation
- System-to-system transfers with Yakima County, King Counties
- Generic web-based interface

Contractor shall provide the Consolidated Criminal History Query deliverable and all documentation to the JIN Project Manager for review and any necessary updates. Upon approval, the Contractor shall present the deliverable and documentation, including any updates, to the JIN Steering Committee for review and approval or if the deliverable is not approved, modification and resubmission for review and approval.

Deliverable: Consolidated Criminal History Query